

## A New Name for an Old Fern from North Alabama

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ABSTRACT.—The varieties of *Thelypteris pilosa* have been recognized as the sole New World members of the subgenus *Stegnogramma*. Ferns of this species complex are common throughout central and southern Mexico, Guatemala, and Honduras and exhibit an intriguing temperate disjunction in Alabama. A significant amount of morphological variation exists in the Mexican taxa; it is unclear whether these differences are due to phenotypic plasticity or genetic factors. Two regionally sympatric morphotypes, varying from deltate to lanceolate fronds, occur throughout Mexico and have been described as var. *major* and var. *pilosa*, respectively. A more distinct type, described as var. *alabamensis*, is endemic to north Alabama rockhouse habitats and has been reported from only a single county. Data on ecology, spore morphology, gametophyte biology, and gross frond morphology support the elevation of *T. pilosa* var. *alabamensis* to specific status under the proposed name of *T. burksiorum*.

The year 2002 marks the 160th year since the publication of Martens and Galeotti's *Mémoire sur les fougères du Mexique*. This monumental work represented the first attempt to catalogue the ferns of Mexico and thus introduced several new fern species to science, including *Thelypteris pilosa*, which they discovered in the state of Oaxaca (Martens & Galeotti, 1842, p. 27). This taxon has been recognized as the sole New World member of the obscure, largely Old World *Thelypteris* subg. *Stegnogramma*. Over one hundred years later, Crawford (1951) discovered a single population of *T. pilosa* in Alabama and initiated the first examination of the New World representatives of subg. *Stegnogramma*. Using a limited set of morphological characters, Crawford recognized three varieties, two of which occur throughout Mexico, Guatemala, and Honduras, and the third consisting of the Alabama plants. He applied the name *T. pilosa* var. *pilosa* to a lanceolate morphotype, which happens to correspond with the line drawing rendered by Martens and Galeotti, and *T. pilosa* var. *major* to a deltate morphotype. The more distinct and disjunct Alabama plants, characterized by their much smaller fronds and obtuse pinna apices, he recognized as *T. pilosa* var. *alabamensis*. This segregation of the Mexican varieties has been challenged by Smith (1981, p. 236), while Iwatsuki (1964) recognized Crawford's original varieties. It remains unclear whether these taxa are sufficiently distinct to be recognized as varieties, warrant elevation to specific rank, or are simply extremes within a morphological cline. Because both varieties *major* and *pilosa* are common, occur sympatrically in Mexico, and intergrade morphologically throughout their distribution in Mexico, the question of their genetic

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